

ABSTRACT

Corrosion-inhibited fire retardant compositions and methods of making and using the same are provided. The corrosion-inhibited fire retardant compositions are comprised of at least one fire retardant component, at least one

5 biopolymer having a particle size diameter of less than about 100 microns, and a corrosion inhibiting system. The corrosion inhibiting system is comprised of at least one corrosion inhibiting compound selected from a group of compounds including azoles, insoluble ferric pyrophosphate, soluble ferric pyrophosphate, ferrous oxalate, ferric citrate, ferrous sulfate, ferric ammonium citrate, soluble

10 ferric orthophosphate, insoluble ferric orthophosphate, ferric ammonium oxalate, ferric ammonium sulfate, ferric bromide, ferric sodium oxalate, ferric stearate, ferric sulfate, ferrous acetate, ferrous ammonium sulfate, ferrous bromide, ferrous gluconate, ferrous iodide, ferric acetate, ferric fluoroborate, ferric hydroxide, ferric oleate, ferrous fumarate, ferrous oxide, ferric lactate, ferric resinate and any

15 combination thereof. In a specific embodiment, the corrosion-inhibited fire retardant composition includes a xanthan biopolymer.